

Appendix E1

Given the expansion of tumor ablation–related studies since the original document, many additional relevant studies should be cited. Due to limitations in manuscript length for print publication, we have included a list of additional references on a section-by-section basis as Appendix E1.

Additional Clinical Studies: Long-term Studies and Randomized, Controlled Studies

Ambrogi MC, Fanucchi O, Cioni R, et al. Long-term results of radiofrequency ablation treatment of stage I non-small cell lung cancer: a prospective intention-to-treat study. *J Thorac Oncol* 2011;6(12):2044–2051.

Francica G, Saviano A, De Sio I, et al. Long-term effectiveness of radiofrequency ablation for solitary small hepatocellular carcinoma: a retrospective analysis of 363 patients. *Dig Liver Dis* 2013;45(4):336–341.

Gillams AR, Lees WR. Five-year survival following radiofrequency ablation of small, solitary, hepatic colorectal metastases. *J Vasc Interv Radiol* 2008;19(5):712–717.

Ma Y, Bedir S, Cadeddu JA, Gahan JC. Long-term outcomes in healthy adults following radiofrequency ablation of T1a renal tumours. *BJU Int* 2014;113(1):51–55.

Simon CJ, Dupuy DE, DiPetrillo TA, et al. Pulmonary radiofrequency ablation: long-term safety and efficacy in 153 patients. *Radiology* 2007;243(1):268–275.

Tohme S, Geller DA, Cardinal JS, et al. Radiofrequency ablation compared to resection in early-stage hepatocellular carcinoma. *HPB (Oxford)* 2013;15(3):210–217.

Shiina S, Tateishi R, Arano T, et al. Radiofrequency ablation for hepatocellular carcinoma: 10-year outcome and prognostic factors. *Am J Gastroenterol* 2012;107(4):569–577; quiz 578.

Feng K, Yan J, Li X, et al. A randomized controlled trial of radiofrequency ablation and surgical resection in the treatment of small hepatocellular carcinoma. *J Hepatol* 2012;57(4):794–802.

Guan W, Bai J, Liu J, et al. Microwave ablation versus partial nephrectomy for small renal tumors: intermediate-term results. *J Surg Oncol* 2012;106(3):316–321.

Petre EN, Jia X, Thornton RH, et al. Treatment of pulmonary colorectal metastases by radiofrequency ablation. *Clin Colorectal Cancer* 2013;12(1):37–44.

Additional Society Position Statements on Tumor Ablation

Brown DB, Gould JE, Gervais DA, et al. Transcatheter therapy for hepatic malignancy: standardization of terminology and reporting criteria. *J Vasc Interv Radiol* 2009;20(suppl 7):S425–S434.

Callstrom MR, York JD, Gaba RC, et al. Research reporting standards for image-guided ablation of bone and soft tissue tumors. *J Vasc Interv Radiol* 2009;20(12):1527–1540.

Clark TW, Millward SF, Gervais DA, et al. Reporting standards for percutaneous thermal ablation of renal cell carcinoma. *J Vasc Interv Radiol* 2009;20(suppl 7):S409–S416.

Rose SC, Dupuy DE, Gervais DA, et al. Research reporting standards for percutaneous thermal ablation of lung neoplasms. *J Vasc Interv Radiol* 2009;20(suppl 7):S474–S485.

Different Methods of Tumor Ablation

Ward RC, Healey TT, Dupuy DE. Microwave ablation devices for interventional oncology. *Expert Rev Med Devices* 2013;10(2):225–238.

Cheung W, Kavvoudias H, Roberts S, Szakandera B, Kemp W, Thomson KR. Irreversible electroporation for unresectable hepatocellular carcinoma: initial experience and review of safety and outcomes. *Technol Cancer Res Treat* 2013;12(3):233–241.

Cressman EN, Shenoi MM, Edelman TL, et al. In vivo comparison of simultaneous versus sequential injection technique for thermochemical ablation in a porcine model. *Int J Hyperthermia* 2012;28(2):105–112.

Shiina S, Tagawa K, Niwa Y, et al. Percutaneous ethanol injection therapy for hepatocellular carcinoma: results in 146 patients. *AJR Am J Roentgenol* 1993;160(5):1023–1028.

Lin SM, Lin CJ, Lin CC, Hsu CW, Chen YC. Randomised controlled trial comparing percutaneous radiofrequency thermal ablation, percutaneous ethanol injection, and percutaneous acetic acid injection to treat hepatocellular carcinoma of 3 cm or less. *Gut* 2005;54(8):1151–1156.

Ahmed M, Weinstein J, Liu Z, et al. Image-guided percutaneous chemical and radiofrequency tumor ablation in an animal model. *J Vasc Interv Radiol* 2003;14(8):1045–1052.

Aguilar-Garib JA. Medical applications: the ISM band [letter]. *J Microw Power Electromagn Energy* 2010;44(3):131.

Cheung TT, Fan ST, Chan SC, et al. High-intensity focused ultrasound ablation: an effective bridging therapy for hepatocellular carcinoma patients. *World J Gastroenterol* 2013;19(20):3083–3089.

Kariniemi J, Ojala R, Hellström P, Sequeiros RB. MRI-guided percutaneous laser ablation of small renal cell carcinoma: initial clinical experience. *Acta Radiol* 2010;51(4):467–472.

Silverman SG, Tuncali K, Adams DF, et al. MR imaging-guided percutaneous cryotherapy of liver tumors: initial experience. *Radiology* 2000;217(3):657–664.

Cheung TT, Fan ST, Chan SC, et al. High-intensity focused ultrasound ablation: an effective bridging therapy for hepatocellular carcinoma patients. *World J Gastroenterol* 2013;19(20):3083–3089.

Reporting Applicator, Device, and Energy Application/Algorithm Parameters

Meijerink MR, van den Tol P, van Tilborg AA, van Waesberghe JH, Meijer S, van Kuijk C. Radiofrequency ablation of large size liver tumours using novel plan-parallel expandable bipolar electrodes: initial clinical experience. *Eur J Radiol* 2011;77(1):167–171.

Aguilar-Garib JA. Medical applications: the ISM band. *J Microw Power Electromagn Energy* 2010;44(3):131.

Brace CL. Dual-slot antennas for microwave tissue heating: parametric design analysis and experimental validation. *Med Phys* 2011;38(7):4232–4240.

Koda M, Tokunaga S, Matono T, Sugihara T, Nagahara T, Murawaki Y. Comparison between different thickness umbrella-shaped expandable radiofrequency electrodes (SuperSlim and CoAccess): experimental and clinical study. *Exp Ther Med* 2011;2(6):1215–1220.

Miao Y, Ni Y, Yu J, Zhang H, Baert A, Marchal G. An ex vivo study on radiofrequency tissue ablation: increased lesion size by using an “expandable-wet” electrode. *Eur Radiol* 2001;11(9):1841–1847.

Hirakawa M, Ikeda K, Kobayashi M, et al. Randomized controlled trial of a new procedure of radiofrequency ablation using an expandable needle for hepatocellular carcinoma. *Hepatol Res* 2013;43(8):846–852.

Rempp H, Voigtländer M, Clasen S, et al. Increased ablation zones using a cryo-based internally cooled bipolar RF applicator in ex vivo bovine liver. *Invest Radiol* 2009;44(12):763–768.

Burdío F, Tobajas P, Quesada-Diez R, et al. Distant infusion of saline may enlarge coagulation volume during radiofrequency ablation of liver tissue using cool-tip electrodes without impairing predictability. *AJR Am J Roentgenol* 2011;196(6):W837–W843.

Abitabile P, Maurer CA. Radiofrequency ablation of liver tumors: a novel needle perfusion technique enhances efficiency. *J Surg Res* 2010;159(1):532–537.

Clasen S, Schmidt D, Boss A, et al. Multipolar radiofrequency ablation with internally cooled electrodes: experimental study in ex vivo bovine liver with mathematic modeling. *Radiology* 2006;238(3):881–890.

Goldberg SN, Stein MC, Gazelle GS, Sheiman RG, Kruskal JB, Clouse ME. Percutaneous radiofrequency tissue ablation: optimization of pulsed-radiofrequency technique to increase coagulation necrosis. *J Vasc Interv Radiol* 1999;10(7):907–916.

Wong SN, Santi GE, Nurjadin H, Aguilar R, Gosalvez-Pe S. Temperature-dependent electrode repositioning for multiple overlapping radiofrequency ablation in ex vivo porcine livers. *J Vasc Interv Radiol* 2010;21(11):1733–1738.

Woo S, Lee JM, Yoon JH, et al. Small- and medium-sized hepatocellular carcinomas: monopolar radiofrequency ablation with a multiple-electrode switching system—mid-term results. *Radiology* 2013;268(2):589–600.

Laeseke PF, Lee FT Jr, van der Weide DW, Brace CL. Multiple-antenna microwave ablation: spatially distributing power improves thermal profiles and reduces invasiveness. *J Interv Oncol* 2009;2(2):65–72.

Tissue Properties Affecting Ablation

Ahmed M, Liu Z, Humphries S, Goldberg SN. Computer modeling of the combined effects of perfusion, electrical conductivity, and thermal conductivity on tissue heating patterns in radiofrequency tumor ablation. *Int J Hyperthermia* 2008;24(7):577–588.

- Ahmed M, Liu Z, Afzal KS, et al. Radiofrequency ablation: effect of surrounding tissue composition on coagulation necrosis in a canine tumor model. *Radiology* 2004;230(3):761–767.
- Yu NC, Raman SS, Kim YJ, Lassman C, Chang X, Lu DS. Microwave liver ablation: influence of hepatic vein size on heat-sink effect in a porcine model. *J Vasc Interv Radiol* 2008;19(7):1087–1092.
- Chang I, Mikityansky I, Wray-Cahen D, Pritchard WF, Karanian JW, Wood BJ. Effects of perfusion on radiofrequency ablation in swine kidneys. *Radiology* 2004;231(2):500–505.
- Kim C, O'Rourke AP, Will JA, Mahvi DM, Webster JG. Finite-element analysis of hepatic cryoablation around a large blood vessel. *IEEE Trans Biomed Eng* 2008;55(8):2087–2093.
- Patterson EJ, Scudamore CH, Owen DA, Nagy AG, Buczkowski AK. Radiofrequency ablation of porcine liver in vivo: effects of blood flow and treatment time on lesion size. *Ann Surg* 1998;227(4):559–565.
- Solbiati L, Livraghi T, Goldberg SN, et al. Percutaneous radio-frequency ablation of hepatic metastases from colorectal cancer: long-term results in 117 patients. *Radiology* 2001;221(1):159–166.
- Yang W, Chen MH, Wang MQ, et al. Combination therapy of radiofrequency ablation and transarterial chemoembolization in recurrent hepatocellular carcinoma after hepatectomy compared with single treatment. *Hepatol Res* 2009;39(3):231–240.
- Curley SA, Izzo F, Ellis LM, Nicolas Vauthey J, Vallone P. Radiofrequency ablation of hepatocellular cancer in 110 patients with cirrhosis. *Ann Surg* 2000;232(3):381–391.
- Seki T, Tamai T, Nakagawa T, et al. Combination therapy with transcatheter arterial chemoembolization and percutaneous microwave coagulation therapy for hepatocellular carcinoma. *Cancer* 2000;89(6):1245–1251.
- Yang W, Chen MH, Wang MQ, et al. Combination therapy of radiofrequency ablation and transarterial chemoembolization in recurrent hepatocellular carcinoma after hepatectomy compared with single treatment. *Hepatol Res* 2009;39(3):231–240.
- Liu Z, Ahmed M, Weinstein Y, Yi M, Mahajan RL, Goldberg SN. Characterization of the RF ablation-induced ‘oven effect’: the importance of background tissue thermal conductivity on tissue heating. *Int J Hyperthermia* 2006;22(4):327–342.
- Cantwell CP, Wah TM, Gervais DA, et al. Protecting the ureter during radiofrequency ablation of renal cell cancer: a pilot study of retrograde pyeloperfusion with cooled dextrose 5% in water. *J Vasc Interv Radiol* 2008;19(7):1034–1040.
- Wah TM, Koenig P, Irving HC, Gervais DA, Mueller PR. Radiofrequency ablation of a central renal tumor: protection of the collecting system with a retrograde cold dextrose pyeloperfusion technique. *J Vasc Interv Radiol* 2005;16(11):1551–1555.
- Goldberg SN, Ahmed M, Gazelle GS, et al. Radio-frequency thermal ablation with NaCl solution injection: effect of electrical conductivity on tissue heating and coagulation—phantom and porcine liver study. *Radiology* 2001;219(1):157–165.
- Ben-David E, Ahmed M, Faroja M, et al. Irreversible electroporation: treatment effect is susceptible to local environment and tissue properties. *Radiology* 2013;269(3):738–747.

O'Rourke AP, Lazebnik M, Bertram JM, et al. Dielectric properties of human normal, malignant and cirrhotic liver tissue: in vivo and ex vivo measurements from 0.5 to 20 GHz using a precision open-ended coaxial probe. *Phys Med Biol* 2007;52(15):4707–4719.

Brace CL. Temperature-dependent dielectric properties of liver tissue measured during thermal ablation: toward an improved numerical model. *Conf Proc IEEE Eng Med Biol Soc* 2008;2008:230–233.

Concomitant, Combination, and Concurrent Therapies

Berber E, Flesher N, Siperstein AE. Laparoscopic radiofrequency ablation of neuroendocrine liver metastases. *World J Surg* 2002;26(8):985–990.

Merkle EM, Goldberg SN, Boll DT, et al. Effects of superparamagnetic iron oxide on radio-frequency-induced temperature distribution: in vitro measurements in polyacrylamide phantoms and in vivo results in a rabbit liver model. *Radiology* 1999;212(2):459–466.

Hakimé A, Hines-Peralta A, Peddi H, et al. Combination of radiofrequency ablation with antiangiogenic therapy for tumor ablation efficacy: study in mice. *Radiology* 2007;244(2):464–470.

Ahmed M, Liu Z, Lukyanov AN, et al. Combination radiofrequency ablation with intratumoral liposomal doxorubicin: effect on drug accumulation and coagulation in multiple tissues and tumor types in animals. *Radiology* 2005;235(2):469–477.

Wood BJ, Poon RT, Locklin JK, et al. Phase I study of heat-deployed liposomal doxorubicin during radiofrequency ablation for hepatic malignancies. *J Vasc Interv Radiol* 2012;23(2):248–255, e7.

Lane MD, Le HB, Lee S, et al. Combination radiofrequency ablation and cementoplasty for palliative treatment of painful neoplastic bone metastasis: experience with 53 treated lesions in 36 patients. *Skeletal Radiol* 2011;40(1):25–32.

Gameiro SR, Higgins JP, Dreher MR, et al. Combination therapy with local radiofrequency ablation and systemic vaccine enhances antitumor immunity and mediates local and distal tumor regression. *PLoS ONE* 2013;8(7):e70417.

Kroeze SG, Daenen LG, Nijkamp MW, et al. Radio frequency ablation combined with interleukin-2 induces an antitumor immune response to renal cell carcinoma in a murine model. *J Urol* 2012;188(2):607–614.

Image Guidance in Ablation

Jolesz FA, Silverman SG. Interventional magnetic resonance therapy. *Semin Intervent Radiol* 1995;12(1):20–27.

Kurup AN, Morris JM, Schmit GD, et al. Neuroanatomic considerations in percutaneous tumor ablation. *RadioGraphics* 2013;33(4):1195–1215.

Ryan ER, Sofocleous CT, Schöder H, et al. Split-dose technique for FDG PET/CT-guided percutaneous ablation: a method to facilitate lesion targeting and to provide immediate assessment of treatment effectiveness. *Radiology* 2013;268(1):288–295.

Gazelle GS, Haaga JR. Guided percutaneous biopsy of intraabdominal lesions. *AJR Am J Roentgenol* 1989;153(5):929–935.

Lewin JS, Connell CF, Duerk JL, et al. Interactive MRI-guided radiofrequency interstitial thermal ablation of abdominal tumors: clinical trial for evaluation of safety and feasibility. *J Magn Reson Imaging* 1998;8(1):40–47.

Jung EM, Friedrich C, Hoffstetter P, et al. Volume navigation with contrast enhanced ultrasound and image fusion for percutaneous interventions: first results. *PLoS ONE* 2012;7(3):e33956.

Onik G, Kane R, Steele G, et al. Society of Gastrointestinal Radiologists Roscoe E. Miller Award. Monitoring hepatic cryosurgery with sonography. *AJR Am J Roentgenol* 1986;147(4):665–669.

Wu B, Xiao YY, Zhang X, Zhang AL, Li HJ, Gao DF. Magnetic resonance imaging-guided percutaneous cryoablation of hepatocellular carcinoma in special regions. *Hepatobiliary Pancreat Dis Int* 2010;9(4):384–392.

Rempp H, Unterberg J, Hoffmann R, et al. Therapy monitoring of magnetic resonance-guided radiofrequency ablation using T1- and T2-weighted sequences at 1.5 T: reliability of estimated ablation zones. *Invest Radiol* 2013;48(6):429–436.

Holbrook AB, Santos JM, Kaye E, Rieke V, Pauly KB. Real-time MR thermometry for monitoring HIFU ablations of the liver. *Magn Reson Med* 2010;63(2):365–373.

Tsoumakidou G, Buy X, Garnon J, Enescu J, Gangi A. Percutaneous thermal ablation: how to protect the surrounding organs. *Tech Vasc Interv Radiol* 2011;14(3):170–176.

Rempp H, Clasen S, Pereira PL. Image-based monitoring of magnetic resonance-guided thermoablative therapies for liver tumors. *Cardiovasc Intervent Radiol* 2012;35(6):1281–1294.

Zientara GP, Saiviroonporn P, Morrison PR, et al. MRI monitoring of laser ablation using optical flow. *J Magn Reson Imaging* 1998;8(6):1306–1318.

Park MJ, Kim TH, Lee KM, Cheong JY, Kim JK. Radiofrequency ablation of metastatic liver masses: recurrence patterns and prognostic factors based on radiologic features. *Hepatogastroenterology* 2013;60(123):563–567.

Makino Y, Imai Y, Igura T, et al. Utility of computed tomography fusion imaging for the evaluation of the ablative margin of radiofrequency ablation for hepatocellular carcinoma and the correlation to local tumor progression. *Hepatol Res* 2013;43(9):950–958.

Anderson EM, Lees WR, Gillams AR. Early indicators of treatment success after percutaneous radiofrequency of pulmonary tumors. *Cardiovasc Intervent Radiol* 2009;32(3):478–483.

Ancillary Procedures

Chen MH, Yang W, Yan K, et al. Radiofrequency ablation of problematically located hepatocellular carcinoma: tailored approach. *Abdom Imaging* 2008;33(4):428–436.

Gervais DA, Arellano RS, McGovern FJ, McDougal WS, Mueller PR. Radiofrequency ablation of renal cell carcinoma. II. Lessons learned with ablation of 100 tumors. *AJR Am J Roentgenol* 2005;185(1):72–80.

Lee SJ, Choyke LT, Locklin JK, Wood BJ. Use of hydrodissection to prevent nerve and muscular damage during radiofrequency ablation of kidney tumors. *J Vasc Interv Radiol* 2006;17(12):1967–1969.

Kam AW, Littrup PJ, Walther MM, Hvizda J, Wood BJ. Thermal protection during percutaneous thermal ablation of renal cell carcinoma. *J Vasc Interv Radiol* 2004;15(7):753–758.

Uehara T, Hirooka M, Ishida K, et al. Percutaneous ultrasound-guided radiofrequency ablation of hepatocellular carcinoma with artificially induced pleural effusion and ascites. *J Gastroenterol* 2007;42(4):306–311.

Song I, Rhim H, Lim HK, Kim YS, Choi D. Percutaneous radiofrequency ablation of hepatocellular carcinoma abutting the diaphragm and gastrointestinal tracts with the use of artificial ascites: safety and technical efficacy in 143 patients. *Eur Radiol* 2009;19(11):2630–2640.

DeBenedictis CM, Beland MD, Dupuy DE, Mayo-Smith WW. Utility of iodinated contrast medium in hydrodissection fluid when performing renal tumor ablation. *J Vasc Interv Radiol* 2010;21(5):745–747.

Campbell C, Lubner MG, Hinshaw JL, Muñoz del Rio A, Brace CL. Contrast media-doped hydrodissection during thermal ablation: optimizing contrast media concentration for improved visibility on CT images. *AJR Am J Roentgenol* 2012;199(3):677–682.

Sudheendra D, Dromi S, Wood BJ. Subdermal fluid for skin protection during superficial palliative thermal ablation. *J Vasc Interv Radiol* 2006;17(9):1545–1547.

Raman SS, Aziz D, Chang X, et al. Minimizing central bile duct injury during radiofrequency ablation: use of intraductal chilled saline perfusion—initial observations from a study in pigs. *Radiology* 2004;232(1):154–159.

Pathology and Imaging

Sofocleous CT, Garg S, Petrovic LM, et al. Ki-67 is a prognostic biomarker of survival after radiofrequency ablation of liver malignancies. *Ann Surg Oncol* 2012;19(13):4262–4269.

Snoeren N, Huiskens J, Rijken AM, et al. Viable tumor tissue adherent to needle applicators after local ablation: a risk factor for local tumor progression. *Ann Surg Oncol* 2011;18(13):3702–3710.

Fujisawa S, Romin Y, Barlas A, et al. Evaluation of YO-PRO-1 as an early marker of apoptosis following radiofrequency ablation of colon cancer liver metastases. *Cytotechnology* 2014;66(2):259–273.

Zervas NT, Kuwayama A. Pathological characteristics of experimental thermal lesions. Comparison of induction heating and radiofrequency electrocoagulation. *J Neurosurg* 1972;37(4):418–422.

Wu F, Wang ZB, Cao YD, et al. Heat fixation of cancer cells ablated with high-intensity-focused ultrasound in patients with breast cancer. *Am J Surg* 2006;192(2):179–184.

Yamashiki N, Kato T, Bejarano PA, et al. Histopathological changes after microwave coagulation therapy for patients with hepatocellular carcinoma: review of 15 explanted livers. *Am J Gastroenterol* 2003;98(9):2052–2059.

Sofocleous CT, Garg SK, Cohen P, et al. Ki 67 is an independent predictive biomarker of cancer specific and local recurrence-free survival after lung tumor ablation. *Ann Surg Oncol* 2013;20(Suppl 3):S676–S683.

Schneider T, Reuss D, Warth A, et al. The efficacy of bipolar and multipolar radiofrequency ablation of lung neoplasms: results of an ablate and resect study. *Eur J Cardiothorac Surg* 2011;39(6):968–973.

Clasen S, Krober SM, Kosan B, et al. Pathomorphologic evaluation of pulmonary radiofrequency ablation: proof of cell death is characterized by DNA fragmentation and apoptotic bodies. *Cancer* 2008;113(11):3121–3129.

Appelbaum L, Ben-David E, Sosna J, Nissenbaum Y, Goldberg SN. US findings after irreversible electroporation ablation: radiologic-pathologic correlation. *Radiology* 2012;262(1):117–125.

Dupuy DE, Aswad B, Ng T. Irreversible electroporation in a swine lung model. *Cardiovasc Intervent Radiol* 2011;34(2):391–395.

Schraml C, Schwenzer NF, Clasen S, et al. Navigator respiratory-triggered diffusion-weighted imaging in the follow-up after hepatic radiofrequency ablation: initial results. *J Magn Reson Imaging* 2009;29(6):1308–1316.

Georgiades C, Rodriguez R, Azene E, et al. Determination of the nonlethal margin inside the visible “ice-ball” during percutaneous cryoablation of renal tissue. *Cardiovasc Intervent Radiol* 2013;36(3):783–790.

Abtin FG, Eradat J, Gutierrez AJ, Lee C, Fishbein MC, Suh RD. Radiofrequency ablation of lung tumors: imaging features of the postablation zone. *RadioGraphics* 2012;32(4):947–969.

Singnurkar A, Solomon SB, Gönen M, Larson SM, Schöder H. 18F-FDG PET/CT for the prediction and detection of local recurrence after radiofrequency ablation of malignant lung lesions. *J Nucl Med* 2010;51(12):1833–1840.

Pavlovich CP, Walther M, Choyke PL, et al. Percutaneous radio frequency ablation of small renal tumors: initial results. *J Urol* 2002;167(1):10–15.

Liu CH, Arellano RS, Uppot RN, Samir AE, Gervais DA, Mueller PR. Radiofrequency ablation of hepatic tumours: effect of post-ablation margin on local tumour progression. *Eur Radiol* 2010;20(4):877–885.

Brook OR, Mendiratta-Lala M, Brennan D, Siewert B, Faintuch S, Goldberg SN. Imaging findings after radiofrequency ablation of adrenal tumors. *AJR Am J Roentgenol* 2011;196(2):382–388.

Ganguli S, Brennan DD, Faintuch S, Rayan ME, Goldberg SN. Immediate renal tumor involution after radiofrequency thermal ablation. *J Vasc Interv Radiol* 2008;19(3):412–418.

Arima K, Yamakado K, Suzuki R, et al. Image-guided radiofrequency ablation for adrenocortical adenoma with Cushing syndrome: outcomes after mean follow-up of 33 months. *Urology* 2007;70(3):407–411.

Yasui K, Kanazawa S, Sano Y, et al. Thoracic tumors treated with CT-guided radiofrequency ablation: initial experience. *Radiology* 2004;231(3):850–857.

Frich L, Hagen G, Brabrand K, et al. Local tumor progression after radiofrequency ablation of colorectal liver metastases: evaluation of ablative margin and three-dimensional volumetric analysis. *J Vasc Interv Radiol* 2007;18(9):1134–1140.

Keil S, Bruners P, Schiffel K, et al. Radiofrequency ablation of liver metastases: software-assisted evaluation of the ablation zone in MDCT—tumor-free follow-up versus local recurrent disease. *Cardiovasc Intervent Radiol* 2010;33(2):297–306.

Fujioka C, Horiguchi J, Ishifuro M, et al. A feasibility study: evaluation of radiofrequency ablation therapy to hepatocellular carcinoma using image registration of preoperative and postoperative CT. *Acad Radiol* 2006;13(8):986–994.

Eisenhauer EA, Therasse P, Bogaerts J, et al. New response evaluation criteria in solid tumours: revised RECIST guideline (version 1.1). *Eur J Cancer* 2009;45(2):228–247.

Schmit GD, Atwell TD, Callstrom MR, et al. Percutaneous cryoablation of renal masses >or=3 cm: efficacy and safety in treatment of 108 patients. *J Endourol* 2010;24(8):1255–1262.

Andreano A, Huang Y, Meloni MF, Lee FT Jr, Brace C. Microwaves create larger ablations than radiofrequency when controlled for power in ex vivo tissue. *Med Phys* 2010;37(6):2967–2973.

de Baere T, Denys A, Wood BJ, et al. Radiofrequency liver ablation: experimental comparative study of water-cooled versus expandable systems. *AJR Am J Roentgenol* 2001;176(1):187–192.

Hoffmann R, Rempp H, Erhard L, et al. Comparison of four microwave ablation devices: an experimental study in ex vivo bovine liver. *Radiology* 2013;268(1):89–97.

Reporting Complications and Side Effects

Livraghi T, Solbiati L, Meloni MF, Gazelle GS, Halpern EF, Goldberg SN. Treatment of focal liver tumors with percutaneous radio-frequency ablation: complications encountered in a multicenter study. *Radiology* 2003;226(2):441–451.

Rhim H, Yoon KH, Lee JM, et al. Major complications after radio-frequency thermal ablation of hepatic tumors: spectrum of imaging findings. *RadioGraphics* 2003;23(1):123–134; discussion 134–136.

Vogl TJ, Straub R, Eichler K, Woitaschek D, Mack MG. Malignant liver tumors treated with MR imaging-guided laser-induced thermotherapy: experience with complications in 899 patients (2,520 lesions). *Radiology* 2002;225(2):367–377.

Dodd GD 3rd, Napier D, Schoolfield JD, Hubbard L. Percutaneous radiofrequency ablation of hepatic tumors: postablation syndrome. *AJR Am J Roentgenol* 2005;185(1):51–57.

Narayanan G, Froud T, Lo K, Barbery KJ, Perez-Rojas E, Yrizarry J. Pain analysis in patients with hepatocellular carcinoma: irreversible electroporation versus radiofrequency ablation-initial observations. *Cardiovasc Intervent Radiol* 2013;36(1):176–182.

Carrafiello G, Laganà D, Ianniello A, et al. Post-radiofrequency ablation syndrome after percutaneous radiofrequency of abdominal tumours: one centre experience and review of published works. *Australas Radiol* 2007;51(6):550–554.

Follow-up and Outcomes

Therasse P, Arbuck SG, Eisenhauer EA, et al. New guidelines to evaluate the response to treatment in solid tumors. European Organization for Research and Treatment of Cancer, National Cancer Institute of the United States, National Cancer Institute of Canada. *J Natl Cancer Inst* 2000;92(3):205–216.

Li H, Guo Z, Si T, Wang H. EASL and mRECIST responses are independent predictors of survival in hepatocellular carcinoma patients treated with cryoablation. *Eur J Gastroenterol Hepatol* 2013;25(5):620–627.

Shim JH, Lee HC, Kim SO, et al. Which response criteria best help predict survival of patients with hepatocellular carcinoma following chemoembolization? a validation study of old and new models. *Radiology* 2012;262(2):708–718.

Fong Y, Blumgart LH, Cohen AM. Surgical treatment of colorectal metastases to the liver. *CA Cancer J Clin* 1995;45(1):50–62.

Molmenti EP, Marsh JW, Dvorchik I, Oliver JH 3rd, Madariaga J, Iwatsuki S. Hepatobiliary malignancies: primary hepatic malignant neoplasms. *Surg Clin North Am* 1999;79(1):43–57, viii.

Tracy CR, Raman JD, Donnally C, Trimmer CK, Cadeddu JA. Durable oncologic outcomes after radiofrequency ablation: experience from treating 243 small renal masses over 7.5 years. *Cancer* 2010;116(13):3135–3142.

Hwang JE, Kim SH, Jin J, et al. Combination of percutaneous radiofrequency ablation and systemic chemotherapy are effective treatment modalities for metachronous liver metastases from gastric cancer. *Clin Exp Metastasis* 2014;31(1):25–32.

Stangl DK, Berry DA. Meta-analysis in medicine and health policy. New York, NY: Dekker, 2000.

Fisher B. Clinical trials for the evaluation of cancer therapy. *Cancer* 1984;54(suppl 11):2609–2617.

Peto R, Pike MC, Armitage P, et al. Design and analysis of randomized clinical trials requiring prolonged observation of each patient. I. Introduction and design. *Br J Cancer* 1976;34(6):585–612.

Begg CB, McNeil BJ. Assessment of radiologic tests: control of bias and other design considerations. *Radiology* 1988;167(2):565–569.

Armitage P, Berry G. Statistical methods in medical research. Oxford, England: Blackwell Scientific Publications, 1987.

Rothmann M, Li N, Chen G, Chi GY, Temple R, Tsou HH. Design and analysis of non-inferiority mortality trials in oncology. *Stat Med* 2003;22(2):239–264.

Link RE, Permppongkosol S, Gupta A, Jarrett TW, Solomon SB, Kavoussi LR. Cost analysis of open, laparoscopic, and percutaneous treatment options for nephron-sparing surgery. *J Endourol* 2006;20(10):782–789.